Asbestos Safety

OSHA Standard 29 CFR 1926.1101

Employee information and training: The employer shall, at no cost, to the employee, institute a training program for all employees who are likely to be exposed in excess of a PEL and for all employees who perform Class I through IV asbestos operations, and shall ensure their participation in the program.

Training shall be provided prior to or at at the time of initial assignment and at least annually thereafter.

Training for Class I operations shall be the equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement workers training (40 CFR part 763, subpart E, appendix C).

The training program shall be conducted in a manner that the employee is able to understand. The employer shall ensure that such employee is informed of the following:

Methods of recognizing asbestos including the requirement to presume that certain building materials contain asbestos;

The health effects associated with asbestos exposure;

The relationship between smoking and asbestos in producing lung cancer.

The nature of operations that could result in exposure to asbestos, the importance of necessary protective controls to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste disposal procedures, and any necessary instruction in the use of these controls and procedures where Class III and IV work will be or is performed, the contents of EPA 20T-2003, "Managing Asbestos In-Place" July 1990 or its equivalent in content;

The purpose, proper use, fitting instructions, and limitations of respirators as required by 29 CFR 1910.134.

Access to training materials. The employer shall make readily available to affected employees without cost, written materials relating to the employee training program, including a copy of this regulation.

WHAT IS ASBESTOS?

Asbestos is a mineral that is mined from the earth. There are several kinds of asbestos. All types of asbestos tend to break into very tiny fibers, many of which are not visible without a microscope. Asbestos is resistant to fire and has high tensile strength.

ARE ANY TYPES OF ASBESTOS SAFE?

No. All types of asbestos can cause asbestos-related disease.

WHERE HAS ASBESTOS BEEN USED?

Asbestos has been used in approximately 3,000 different products. The amount of asbestos in asbestos-containing materials varies from less than 1% to 100%. Examples of products that might contain asbestos are:

- fireproofing and insulation in buildings and ships
- insulation for pipes and boilers
- putties, caulks, paints and cements
- friction products, such as clutch facings and brake linings in automobiles.

WHEN ARE ASBESTOS-CONTAINING PRODUCTS DANGEROUS?

Asbestos-containing material (ACM) is dangerous if the asbestos fibers ca be released. Once they are floating freely in the air, asbestos fibers can be inhaled and cause disease.

Some ACM ca easily be crumbled by hand pressure. This soft or loosely-bound material is called "**friable**" asbestos. Friable ACM is the greatest health concern because it can easily release fibers in place begin to deteriorate, the likelihood of fiber release is even greater. Examples of friable asbestos-containing materials are fireproofing on structural beams, sprayed-on asbestos ceiling insulation and trowelled-on acoustical insulation.

Hard asbestos-containing material, such as vinyl floor tile, in which asbestos fibers are firmly bound or encased, does not generally create exposure problems. However, even non-friable ACM can release fibers and present a hazard if it is sanded, cut, ground or disturbed in some other way. Therefore, any material that contains asbestos has the potential to release fibers and become hazardous.

HOW DO I KNOW IF A PRODUCT CONTAINS ASBESTOS?

You cannot tell whether a material contains asbestos by looking at it. The only way to know if a product contains asbestos is to send a piece of the suspect material to a

qualified laboratory. This is called a bulk sample. Only certain kinds of microscopes can be used to analyze the sample--a polarizing light microscope or an electron microscope. (Call the EPA for a list of qualified labs.)

HOW DOES ASBESTOS ENTER THE BODY?

The most common way for asbestos to enter the body is though breathing. Larger fibers usually get trapped in the nose hairs or in the mucous along the breathing passageways. However, some asbestos fibers are so small that they can bypass these body defense mechanism and get deep into the lungs.

Asbestos can also enter the digestive tract when you eat or smoke in a contaminated area. Asbestos does not pass through the skin.

WHAT ARE THE HEALTH EFFECTS OF ASBESTOS EXPOSURE?

Scientists around the world have demonstrated the links between exposure to asbestos and four serious diseases: lung cancer, mesothelioma, digestive system cancer, and asbestosis.

LUNG CANCER: Asbestos-exposed people are about 5 times more likely to develop lung cancer than non-exposed people.

Asbestos and cigarettes are a particularly deadly combination. If a person exposed to asbestos also smokes, his or her chance of getting lung cancer increases dramatically to 50 times that of a non-smoking, non-asbestos exposed person. If you have been exposed to asbestos, the first thing you should do to decrease your risk of getting lung cancer is stop smoking.

MESOTHELIOMA: Mesothelioma is a cancer of the lining of the lungs or of the abdominal cavity. This is a very rare cancer that is almost always associated with asbestos exposure. Mesothelioma has become a major public health concern because this disease can occur after very brief or very low exposures to asbestos. Cases of mesothelioma have occurred in spouses and children of asbestos workers whose only exposures were from the dust brought home on the clothing of family members who worked with asbestos.

DIGESTIVE SYSTEM CANCERS: Increases in stomach, colon, rectal and other digestive system cancers have been observed in asbestos-exposed workers.

ASBESTOSIS: Asbestosis is a scarring of the lung tissue that can lead to shortness of breath. A person with a severe case of asbestosis can barely get enough oxygen to walk. Sometimes the scarring may spread so far through the lungs that it causes death. These severe cases are usually caused by extremely high exposures and are less commonly seen under current working conditions.

WILL I KNOW I'M GETTING SICK FROM ASBESTOS?

No. Asbestos does not cause any immediate effects, such as coughing or itching. The diseases caused by asbestos do not appear until 15 to 40 years after your first exposure. This is called the "latency period." Even if you feel healthy while you are working with asbestos, you may get sick many years later.

CAN I GET SICK FROM ASBESTOS IF I'M NOT AN ASBESTOS WORKER?

Yes. Workers who did not work directly with asbestos, but whose jobs were located near contaminated areas, have developed asbestos-related diseases. There is no "safe level" of exposure to asbestos and even "bystander" exposures can cause asbestos-related disease. As mentioned above, family members of workers exposed to asbestos have gotten sick from the asbestos dust brought home on work clothes, as have people who simply lived near an asbestos factory.

IF I'VE ALREADY BEEN EXPOSED, WHY SHOULD I TAKE PRECAUTIONS?

The more you are exposed, the more likely you are to develop asbestos-related disease. In addition, the more exposure you have, the sooner you will become sick. You should act to prevent further exposures so that your chances of developing asbestos-related disease will remain small.

IF I'VE BEEN EXPOSED, IS THERE A MEDICAL TEST THAT I SHOULD TAKE?

If you are about to begin working with asbestos, or if your job periodically or regularly exposes you to asbestos, you should see a doctor who is knowledgeable about asbestos disease. (Your regular doctor is not likely to know about asbestos-related conditions.) The examination should include, at a minimum:

- a work history
- a medical history
- a chest x-ray
- a breathing test.

Remember, the signs of asbestos disease usually do not appear for 15 to 40 years after exposure first occurs. However, if you do get sick years later and want to seek compensation, a "baseline" examination now will document your health status and help doctors relate future changes in your health to your asbestos exposure.

Once you are exposed, you should see your doctor regularly. Regular medical exams are important because the chances of curing certain cancers are much greater when detected early.

WHY IS PREVENTION OF ASBESTOS EXPOSURE SO IMPORTANT?

1. Asbestos fibers remain in the lungs. The body cannot break down these fibers. Each exposure adds to the body burden from the previous exposure.
2. Asbestos disease can progress even after you are no longer exposed. Asbestos fibers remain in the lung for life. As long as the fibers stay in your body, you are at risk for developing lung disease. This underscores why you must prevent exposure to asbestos in the first place: you cannot turn back the clock.
3. Asbestos-related diseases are rarely curable. Once these diseases are detected, there is usually little that can be done to change the course of the disease.

ARE THERE LAWS THAT WILL PROTECT ME FROM ASBESTOS?

Yes. There are asbestos laws that offer some protection to workers and the general public. For example, OSHA has an Asbestos Standard that outlines proper procedures for asbestos abatement work. New York State and New York City have passed asbestos control laws. There is also a U.S. law, the Asbestos Hazard Emergency Response Act, which covers asbestos in schools. See the NYCOSH fact sheets on these laws for further information on proper engineering controls and work practices to reduce your exposure to asbestos.

ARE THERE SAFE SUBSTITUTES FOR ASBESTOS?

Products like fiberglass and mineral wool are being used as substitutes or replacements for asbestos, but they are not safe substitutes. The few studies that have been done on these products so far indicate that glass fibers and non-asbestos mineral fibers (which are shaped similarly to asbestos fibers) may cause the same kind of lung scarring and cancers as asbestos. Therefore, until we learn more about the health hazards of these substances, you should limit exposure to fiberglass and rock wool just as you control exposure to asbestos.

Asbestos Safety

Safety Training Handout

Asbestos Kills!

- If you are exposed to enough asbestos, it will kill you.
- Asbestos is too small to be seen, and enters your body when you breathe, eat or drink.
- Asbestos is used in thousands of products.
- Maintenance and construction workers are most at risk.

Diseases Cause By Asbestos

- Lung cancer causes the most deaths related to asbestos exposure.
- Asbestosis is a deadly, non-cancerous respiratory disease.
- Mesothelioma is a cancer of the lining of the chest or abdomen.
- It can cause cancer of the esophagus, stomach, intestines, rectum, colon and pancreas.

Protect yourself when working with asbestos. Do not:

- Allow asbestos fibers to become airborne.
- Saw, sand, scrape or drill holes in asbestos material.
- Use abrasive pads or power strippers to sand wax from asbestos flooring.
- Touch damaged asbestos without protective equipment.
- Sand or try to level asbestos flooring or its backing.

When cleaning in areas with asbestos:

- Use a dampened mop and dust cloth.
- Only use a High Efficiency Particulate Air vacuum cleaner.
- Do not use a broom.

Regulated Areas

- Contain dangerous levels of airborne asbestos.
- Will be marked with signs.
- Require you to follow these precautions:
  - Wear respirators and protective clothing.
  - Leave all protective clothing and equipment in the workplace.
  - Shower immediately after being exposed.